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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,193	08/10/2001	Thad E. Starner	062004-1800	3820
24504	7590	05/18/2004		
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			EXAMINER	NEGRON, ISMAEL
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/927,193	Applicant(s) STARNER ET AL.
Examiner Ismael Negron	Art Unit 2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 February 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4, 6-19, 21-28, 30 and 31 is/are rejected.
- 7) Claim(s) 5, 20 and 29 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 August 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on February 25, 2004 has been entered. No claims have been amended, added or cancelled. Claims 1-31 are still pending in this application, with claims 1, 16 and 25 being independent.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "*image-capturing device configured as a pendant and a pin*" (claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4, 11-15, 19 and 28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recite an image capturing system capable of monitoring certain conditions of the user without disclosing (in the specification or the drawings) the way in which such conditions are identified. The specification is silent as to the procedure, algorithms, protocols, etc., etc. used by the claimed invention to perform the functions recited by the claims.

Claim Rejections - 35 USC § 103

4. Claims 1-3, 6-11, 13-18, 21-27, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over MARRIN et al. (U.S. Pat. 5,875,257).

MARRIN et al. discloses a motion detection switch having:

a light emitting device, Figure 3, reference number 215;

the light emitting device illuminating an object, column 2, lines 62-65;

an image forming device, Figure 3, reference number 220;

the image forming device forming one or more images due to light that is reflected from the object, column 5, lines 57-60;

a processor, Figure 3, reference number 210;

the processor analyzing the motion of the object to control at least one electrical device, Figure 3, reference number 240;

- **the electrical device being a music synthesizer, a controllable music playback device, a virtual reality system, a display, or a video game**, column 6, lines 27-29;
- **the various conditions being monitored including tempo, emphasis, position, direction, speed or velocity, size and placement**, column 8, lines 20-48;
- **the light emitting device being one of the group consisting of a plurality of light emitting diodes (LED)**, column 5, line 45;
- **the emitted light being infrared light**, column 5, lines 45-47;
- **the object being a hand and/or a baton**, column ;
- **the processor being coupled to the image forming device via a network**, column 5, lines 37-44;
- **the user making different gestures to control the at least one electrical device**, column 10, lines 1-20.

MARRIN et al. discloses all the limitations of the claims except the light emitting device, the image forming device and the processor being configured to be portable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to MARRIN et al., since it has been held that making a device portable or movable without producing any new modification in function or manufacture involves only ordinary skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952). One of ordinary skill in the art would have been motivated to add portability to the device of MARRIN et al. to make such device easier to transport and use in a wide variety of

applications. Even further, the disclosure of MARRIN et al. implies portability by reciting a self-contained power supply and a wireless communication capability as part of the patented invention (see column 5, lines 5-9 and 37-44).

Allowable Subject Matter

5. Claims 5, 20 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 4, 12, 19 and 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

Applicant teaches an image capturing system formed into a pendant or pin, such system having a light-emitting device (Led), an image-forming device, and a processor. The processor analyzing the motion of an object illuminated by the Led, to control electrical devices by detecting one of a plurality of conditions. The various conditions being tremors, Parkinson's syndrome, insomnia, eating habits, alcoholism, over-medication, hypothermia or drinking habits.

No prior art was found teaching individually, or suggesting in combination, all of the features of the applicants' invention, specifically an image capturing system for

controlling an electrical device by detection of the any of the claimed conditions, or such system formed into a pin or pendant.

Response to Arguments

8. Applicant's arguments filed February 25, 2004 have been fully considered but they are not persuasive.
9. Regarding the objection to the drawings under 37 CFR 1.83(a) as failing to show every feature of the invention specified in the claims, the applicant argues that a pendant and a pin are conventional structures which do not require a detail description to be understood.

However, the applicant is respectfully reminded that the subject matter missing from the drawings is not just a simple prior art pendant or pin, but the claimed image-capturing device configured (emphasis added) as a pendant and a pin, as stated in claims 5, 20 and 29. While it might be argued that conventional pendants and pins are old and well known, such argument does not hold true for the claimed "image-capturing device" pendant and pin.

10. Regarding the Examiner's rejection of claims 4, 11-15, 19 and 28 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, the applicant argues that reciting the use of hidden Markov models (HMM) and nearest neighbor algorithms (NNA) is sufficient to meet the enablement requirement.

In response to applicant's arguments the Examiner respectfully reminded that the test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. In this case mentioning that HMM or NNA are used to perform the defining function of the claimed invention does not enable one skill in the art to make and use the instant invention. Such statements are akin to saying that knowing that the operating system Windows is based on DOS enables one to "make and use" windows. It seems that no one (except the inventor) could use and make the claimed invention based on the instant disclosure without extensive (and undue) experimentation, as the disclosure merely describes prior art image capturing systems (e.g. video cameras) in combination with prior art computer devices. The actual method of enabling such prior art devices to perform as the applicant claims it does, is never disclosed.

11. Regarding the Examiner's rejection of claims 1 under 35 U.S.C. 103(a) as being unpatentable over MARRIN et al. (U.S. Pat. 5,875,257), the applicant argues that the cited reference fails to disclose all the features of the claimed invention, specifically a device that forms an image from light reflected from the object.

In response to applicant's argument that the apparatus of MARRIN et al. does not forms an image from light reflected from the target, the applicant is respectfully advised that the test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references. Rather, the test is what the combined

teachings of the reference would have suggested to those of ordinary skill in the art.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In this case the image-forming device of MARRIN et al. uses light emitted directly by the LED positioned on the target. Modifying the apparatus of MARRIN et al. to incorporate the LED into a single housing with the image forming device, with such LED illuminating the target and the image forming device capturing the reflected image would have been well within the capabilities of one of ordinary skill in the art. Such arrangement would consolidate the patented device into a single apparatus, more versatile apparatus with simpler set-up procedures.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications maybe obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



THOMAS M. SEMBER
PRIMARY EXAMINER

Tom
Inr

May 13, 2004